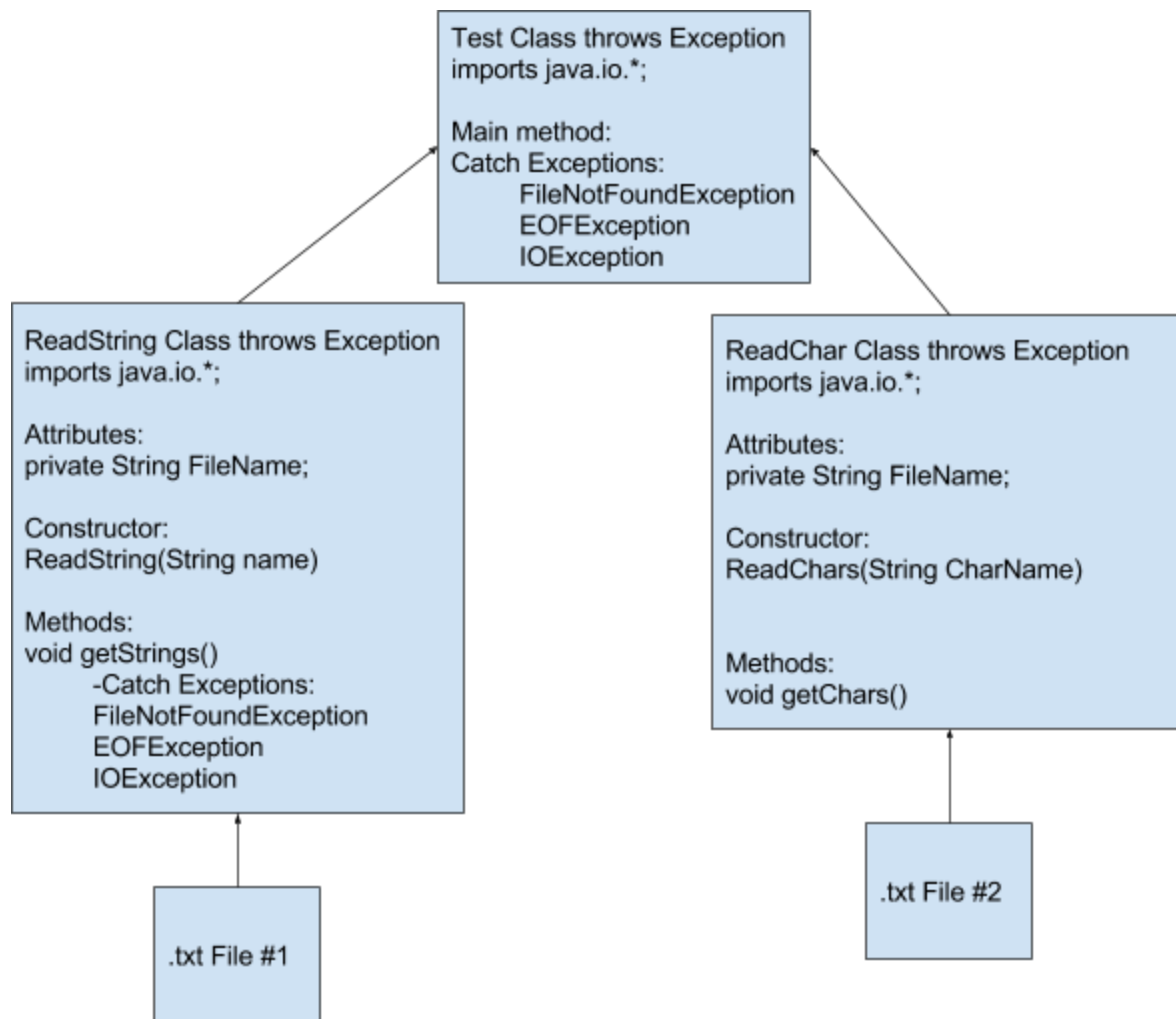


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CSC 123-03  
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4/7/17  
Project 3

Class Diagram:



\*I worked out the project on a MacBook, some features in the code may be different than windows. I'll specify which parts are different within the codes.

ReadString Class:

```
import java.io.*;

public class ReadString {
    private String FileName;
    public ReadString(String name){
        FileName = name;
    }
    public void getStrings() throws Exception{
        //Searching a file on a Mac is different than on a Windows PC. I use String
        desktop to find the file their instead of the workspace.
        String desktop = System.getProperty("user.home") + "/Desktop/";
        // I add desktop + this.fileName for it to read the txt file.
        //If you are testing the code on a Windows, delete String desktop =
        System.getProperty("user.home") + "/Desktop/";
        //and desktop from the File file = new File().
        File file = new File(desktop + this.FileName);
        FileReader fr = null;
        BufferedReader br = null;
        try
        {
            fr = new FileReader(file);
            br = new BufferedReader(fr);
            String line;
            while(true)
            {
                if((line = br.readLine())!=null){
                    System.out.println(line);
                }
                else{
                    throw new EOFException();
                }
            }
        }
        catch(FileNotFoundException e){
            System.out.println("Error - file not found");
        }
        catch(EOFException e){
            System.out.println("Done reading file");
        }
        catch(IOException e){

```

```
        System.out.println("Problem reading file " + e.getMessage());
    }
    finally{
        br.close();
    }
}
}
```

ReadChars Class:

```
import java.io.*;
public class ReadChars {
    private String FileName;
    public ReadChars(String CharName){
        FileName = CharName;
    }
    public void getChars() throws Exception{
        //Searching a file on a Mac is different than on a Windows PC. I use String
        desktop to find the file their instead of the workspace.
        String desktop = System.getProperty("user.home") + "/Desktop/";
        // I add desktop + this.fileName for it to read the txt file.
        //If you are testing the code on a Windows, delete String desktop =
        System.getProperty("user.home") + "/Desktop/";
        //and desktop from the File file = new File().
        File file = new File(desktop + this.FileName);
        FileReader fr = new FileReader(file);
        BufferedReader br = new BufferedReader(fr);

        String line = br.readLine();

        if(line!=null)
        {
            System.out.println(line);
        }

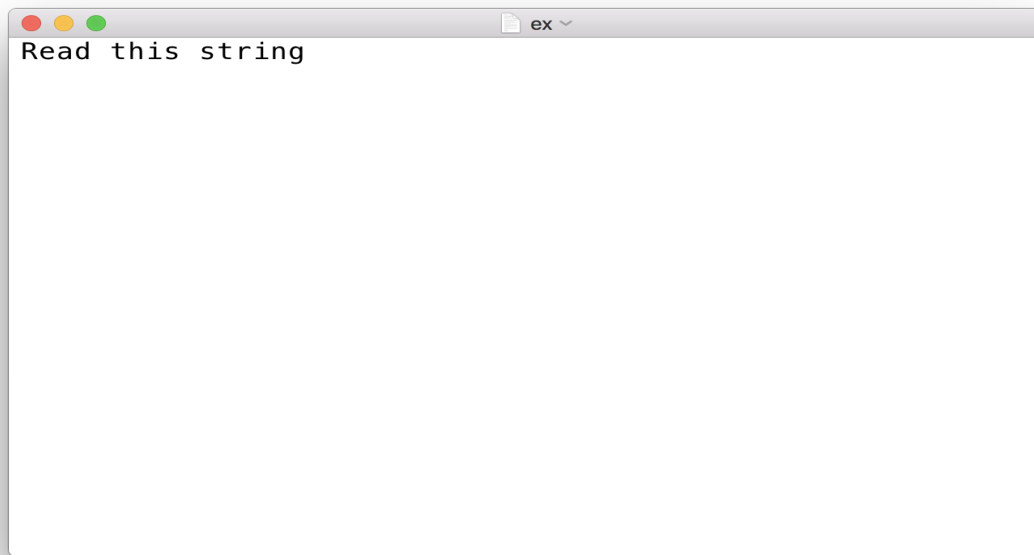
        char[] lineToChar = line.toCharArray();
        for(char c: lineToChar)
        {
            System.out.println(c);
        }
        throw new EOFException();
    }
}
```

Tester Class:

```
import java.io.*;
public class Project3Test {
    public static void main(String[] args) throws Exception{
        ReadString ReadString = new ReadString("ex.txt");
        ReadChars ReadChars = new ReadChars("Untitled.txt");
        try
        {
            System.out.println("ReadString CClass:");
            ReadString.getStrings();
            System.out.println("\nReadChars Class:");
            ReadChars.getChars();

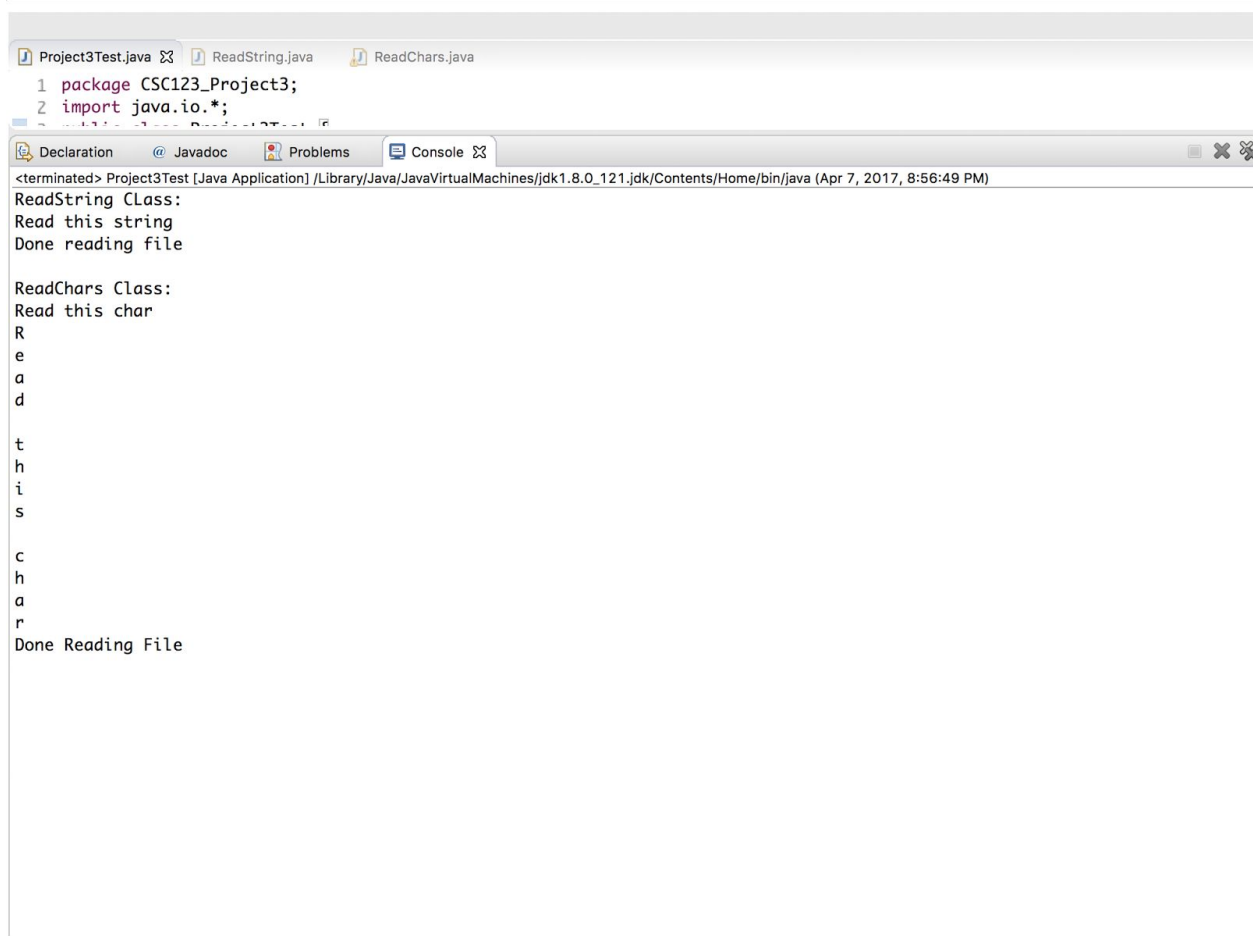
        }
        catch(FileNotFoundException e){
            System.out.println("Error - file not found");
        }
        catch(EOFException e){
            System.out.println("Done Reading File");
        }
        catch(IOException e){
            System.out.println("Problem reading file " + e.getMessage() );
        }
    }
}
```

## Examples of My .txt Files



## Test Cases:

1)



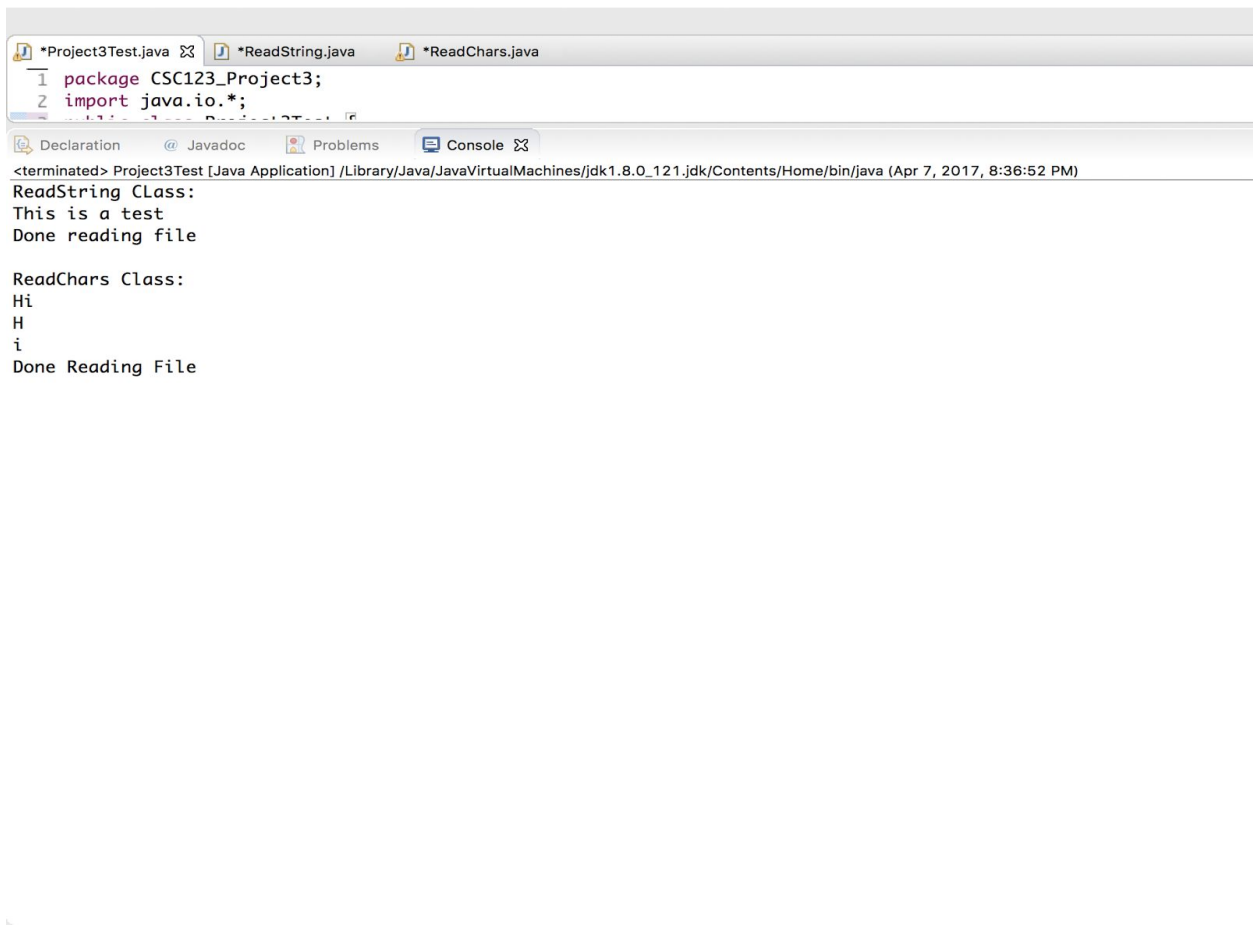
The screenshot shows an IDE with three open files: `Project3Test.java`, `ReadString.java`, and `ReadChars.java`. The `Project3Test.java` file is active, showing the following code:

```
1 package CSC123_Project3;  
2 import java.io.*;
```

Below the code editor, the `Console` tab is selected, displaying the following output:

```
<terminated> Project3Test [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_121.jdk/Contents/Home/bin/java (Apr 7, 2017, 8:56:49 PM)  
ReadString Class:  
Read this string  
Done reading file  
  
ReadChars Class:  
Read this char  
R  
e  
a  
d  
  
t  
h  
i  
s  
  
c  
h  
a  
r  
Done Reading File
```

2)



The screenshot shows an IDE window with three tabs: \*Project3Test.java, \*ReadString.java, and \*ReadChars.java. The \*Project3Test.java tab is active, displaying the following code:

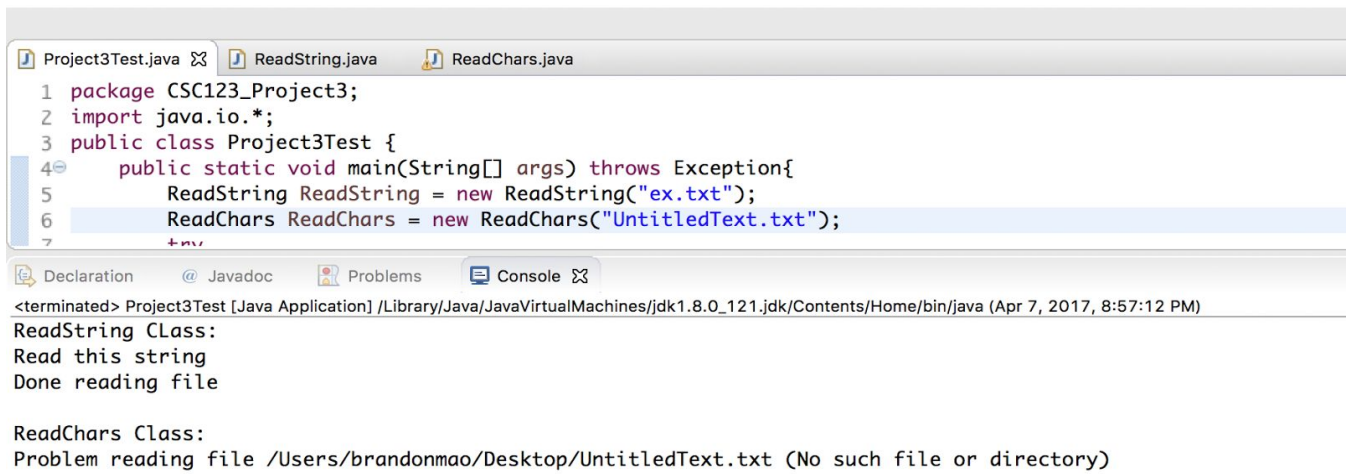
```
1 package CSC123_Project3;  
2 import java.io.*;
```

Below the code editor, there is a toolbar with icons for Declaration, Javadoc, Problems, and Console. The Console tab is selected, showing the following output:

```
<terminated> Project3Test [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_121.jdk/Contents/Home/bin/java (Apr 7, 2017, 8:36:52 PM)  
ReadString Class:  
This is a test  
Done reading file  
  
ReadChars Class:  
Hi  
H  
i  
Done Reading File
```



3)



The screenshot shows an IDE with three tabs: Project3Test.java, ReadString.java, and ReadChars.java. The Project3Test.java tab is active, displaying the following code:

```
1 package CSC123_Project3;  
2 import java.io.*;  
3 public class Project3Test {  
4     public static void main(String[] args) throws Exception{  
5         ReadString ReadString = new ReadString("ex.txt");  
6         ReadChars ReadChars = new ReadChars("UntitledText.txt");  
7     }  
8 }
```

Below the code editor, the Console tab is active, showing the following output:

```
<terminated> Project3Test [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_121.jdk/Contents/Home/bin/java (Apr 7, 2017, 8:57:12 PM)  
ReadString Class:  
Read this string  
Done reading file  
  
ReadChars Class:  
Problem reading file /Users/brandonmao/Desktop/UntitledText.txt (No such file or directory)
```